Author Index

Abdel-Rahman, A. A.	Diffusion characteristics of a plane jet discharged in a wavy crossflowing stream	411–423
Abe, F.	Microstructure and mechanical properties of pure titanium models fabricated by selective laser melting	711–719
Aglietti, G. S.	Model building and verification for active control of microvibrations with probabilistic assessment of the effects of uncertainties	389–399
Ajaykumar, R.	A comparative study of dynamic mesh updating methods used in the simulation of fluid–structure interaction problems with a non-linear free surface	283–300
Ajjarapu, S. K.	Numerical simulations of ductile regime machining of silicon nitride using the Drucker–Prager material model	577–582
Alexandrov, S.	A new upper bound solution for a hollow cylinder subjected to compression and twist	369–375
Alnefaie, K. A.	A finite element analysis of idealized damage in beam structures	921–929
Ankarali, A.	Vibration control of a servomotor-driven coupled elastic shaft–elastic beam system	1115–1124
Aoki, T.	A new technique for the control of a weak shock discharged from a tube	377–387
Aoki, T.	A study of the impulse waves discharged from convergent and divergent ducts	1469–1479
Ardhapurkar, P. M.	Performance analysis of air-lift pump design	1155–1161
Artés, M.	Determination of the effective path of contact of undercut involute gear teeth	751–760
Atkins, A. G.	Rosenhain and Sturney revisited: the 'tear' chip in cutting interpreted in terms of modern ductile fracture mechanics	1181–1194
Aungier, R. H.	Experimental study of steam turbine control valves	493–507
Awari, G. K.	Performance analysis of air-lift pump design	1155–1161
Bakhtar, F.	Studies of nucleating and wet steam flows in two-dimensional cascades	843–858
Bakshi, S.	Multidimensional modelling of flow through piston-controlled ports using a multi-block, moving mesh algorithm	207–222
Balendra, R.	Mechanics of pressure-assisted injection forging of tubular components	1195–1212
Bang, Y.-B.	Two-stage electrohydraulic servovalve using stack-type piezoelectric elements	53–65
Barrans, S. M.	Stress in V-section band clamps	251–261
Benjamin, S. F.	A shielded hot-wire probe to detect flow reversals with one-dimensional pulsating flow	797–801
Berry, C.	An energy-based approach for modelling the behaviour of packaging material during processing	105–118
Bhuyar, L. B.	Performance analysis of air-lift pump design	1155–1161
Bigot, S.	A rule merging technique for handling noise in inductive learning	1255–1268
Brand, C.	Numerical simulations of ductile regime machining of silicon nitride using the Drucker–Prager material model	577–582
Bullough, W. A.	Trends in acoustic properties of iron particle seeded auxetic polyurethane foam	241–244
Buravalla, V. R.	Plasma deposition of constrained layer damping coatings	669–680
Cai, H.	Design of a milling cutter for a novel three-lobe arc–cycloidal helical rotor	1233–1241
Carré, M. J.	Impact of a non-homogeneous sphere on a rigid surface	273–281
Chang, K.-C.	Hygrothermal stress analysis of a plastic ball grid array package during solder reflow	957–970
Chang, S.-L.	A new idea to improve tooth profile precision of involute spur gears manufactured by hob cutters	327–343
Chen, C.	Thermomechanical modelling and force analysis of friction stir welding by the finite element method	509–519
Chen, C.-K.	Non-linear dynamic analysis of a flexible rotor supported by self-acting gas journal bearings	1527–1538
Chen, C.-K.	Mathematical models, meshing analysis and transmission design for a robust cylindrical gear set generated by two blade-discs with parabolic cutting edges	1539–1553
Chen, I.-Y.	A numerical study of inkjet refilling	1481–1497

© IMechE 2004

Chen, J.-T.	Numerical studies of variations in the gap and finger width ratio and travelled distance for the driving force of a radio-frequency microelectromechanical system device using the dual boundary element method	1243–1253
Chen, K.-Z.	Virtual genes of manufacturing products and their reforms for product innovative design	557–574
Chen, L.	Effects of convection in laser-guided transportation	775–782
Chen, W.-F.	A mathematical solution to the design and manufacturing problems of ball-end cutters having a cutting edge with constant angle to the axis	301–308
Chen, Y.-S.	Chaos, chaos control and synchronization of the vibrometer system	1001–1020
Chen, Z.	Prediction of spring-back in anisotropic sheet metals	651–661
Cheng, H.	Finite element analysis of belt skew caused by angular misalignment of rollers	1223–1232
Cheng, M.-Y.	Implementation of a virtual tennis entertainment system with haptic behaviour	345–355
Cherukuri, H.	Numerical simulations of ductile regime machining of silicon nitride using the Drucker–Prager material model	577–582
Chiang, K.-N.	Hygrothermal stress analysis of a plastic ball grid array package during solder reflow	957–970
Choi, S. B.	Pressure control of a pneumatic valve system using a piezoceramic flapper	83–91
Choi, S. B.	A new perturbation estimator in a variable structure system with application to robot control	173–181
Choi, S. B.	Shear stress tracking control of an electrorheological fluid considering hysteresis non-linearity	183–194
Choi, S.-B.	Position control of a dual-servo stage featuring an electrorheological fluid clutch and piezostack actuator	1435–1448
Chow, C. L.	A unified viscoplastic description of 63Sn–37Pb solder alloy under cyclic straining and stressing	909–920
Chyuan, S.-W.	Numerical studies of variations in the gap and finger width ratio and travelled distance for the driving force of a radio-frequency microelectromechanical system device using the dual boundary element method	1243–1253
Cozijnsen, M.	Predicting winding stresses for wound coils of linear orthotropic material	13–25
Cozijnsen, M.	Predicting winding stresses for wound coils of non-linear orthotropic material	27–38
Crane, R. I.	Droplet deposition in steam turbines	859–870
Cui, Y.	Gearing principle and geometric design of conical involute gear pairs with crossed axis	1517–1526
Dai, J. S.	Mathematical modelling and manufacturing of the internal toroidal tooth profile	1043–1051
Dai, J. S.	Design of a milling cutter for a novel three-lobe arc–cycloidal helical rotor	1233–1241
Darabseh, T. T.	Dynamic stability of viscoelastic columns loaded by a follower force	1091–1101
Datta, A.	Droplet size and velocity distributions in a spray from a pressure swirl atomizer: application of maximum entropy formalism	737–749
Datta, P. K.	Dynamic instability characteristics of doubly curved panels subjected to partially distributed follower edge loading with damping	67–81
Davis, R. N.	Mass loss and blunting during high-speed penetration	1053–1062
de Hoog, F. R.	Predicting winding stresses for wound coils of linear orthotropic material	13–25
de Hoog, F. R.	Predicting winding stresses for wound coils of non-linear orthotropic material	27–38
Deshmukh, D.	Multidimensional modelling of flow through piston-controlled ports using a multi-block, moving mesh algorithm	207–222
Diken, H.	Vibration control of a servomotor-driven coupled elastic shaft–elastic beam system	1115–1124
Dimov, S. S.	An Incremental *K*-means algorithm	783–795
Dimov, S. S.	A rule merging technique for handling noise in inductive learning	1255–1268
Dimov, S. S.	A two-phase *K*-means algorithm for large datasets	1269–1273
Dini, D.	Unsymmetrical shear loading and its influence on the frictional shakedown of incomplete contacts	469–475
Dini, D.	The effect of a crack-tip radius on the validity of the singular solution	693–701
Dorey, J. M.	Instrumentation for wet steam	811–842
Drinkwater, B. W.	The measurement of the rocking behaviour of graphite bricks using ultrasound	1213–1222
Du, H.	Dynamics and control performance of hard disk drives with passive dampers	1555–1568
Duan, B. Y.	Active suppression of dynamic coupling of the feed supporting system for the square kilometre array using an electrorheological damper	1569–1579
Duggan, B. J.	A rolling–annealing cycle for enhanced deep drawing properties in interstitial free steels	631–639
Eleshaky, M. E.	Diffusion characteristics of a plane jet discharged in a wavy crossflowing stream	411–423
Engeda, A.	Experimental study of steam turbine control valves	493–507

© IMechE 2004

Erol, H.	Characteristic equations of longitudinally vibrating rods carrying a tip mass and several viscously damped spring–mass systems in-span	1103–1114
Fang, D. N.	Study of magnetomechanical non-linear deformation of ferromagnetic materials: theory and experiment	1405–1410
Featherston, C. A.	Experimental buckling of a simple aerofoil under combined shear and in-plane bending	155–172
Feng, H. D.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Feng, X.	Study of magnetomechanical non-linear deformation of ferromagnetic materials: theory and experiment	1405–1410
Feng, X.-A.	Virtual genes of manufacturing products and their reforms for product innovative design	557–574
Fisher, L.	Annulus wall temperatures and heat transfer coefficients in aeroengine compressors deduced from engine measurements	1349–1360
Ford, I. J.	Statistical mechanics of nucleation: a review	883–899
Fu, Q.	Elastic stress waves of cylindrical rods subjected to rapid energy deposition	359–368
Gabriel, S. B.	Model building and verification for active control of microvibrations with probabilistic assessment of the effects of uncertainties	389–399
García-Masiá, C.	Determination of the effective path of contact of undercut involute gear teeth	751–760
Ge, Z.-M.	Chaos, chaos control and synchronization of the vibrometer system	1001–1020
Genin, J.	Dynamic stability of viscoelastic columns loaded by a follower force	1091–1101
Ghoshdastidar, P. S.	Numerical modelling of atmospheric pool boiling by the coupled map lattice method	195–205
Goodwill, S. R.	Modelling of tennis ball impacts on a rigid surface	1139–1153
Gorla, R. S. R.	Probabilistic finite element analysis in heat transfer to a nuclear fuel rod bumper support	1499–1505
Goruppa, A. A.	Plasma deposition of constrained layer damping coatings	669–680
Guleren, K. M.	Numerical simulation of the stalled flow within a vaned centrifugal pump	425–435
Guo, G.	New passive balancing algorithm for high-density hard disk drives	401–410
Guo, N.	Dynamics and control performance of hard disk drives with passive dampers	1555–1568
Gutaj, F.	A comparison of methods for modelling the dynamics of a cricket bat	1457–1468
Haake, S. J.	Impact of a non-homogeneous sphere on a rigid surface	273–281
Haake, S. J.	Modelling of tennis ball impacts on a rigid surface	1139–1153
Ham, J. H.	A new perturbation estimator in a variable structure system with application to robot control	173–181
Han, S.-S.	Position control of a dual-servo stage featuring an electrorheological fluid clutch and piezostack actuator	1435–1448
Han, Y. M.	Shear stress tracking control of an electrorheological fluid considering hysteresis non-linearity	183–194
Hardin, J. R.	Experimental study of steam turbine control valves	493–507
Hattingh, R. J.	Use of a liquid shock tube as a device for the study of material deformation under impulsive loading conditions	39–51
He, J.	Gearing principle and geometric design of conical involute gear pairs with crossed axis	1517–1526
He, S.	Simulation of mixed convection heat transfer to carbon dioxide at supercritical pressure	1281–1296
He, S.	Performance of a variety of low Reynolds number turbulence models applied to mixed convection heat transfer to air flowing upwards in a vertical tube	1361–1372
He, S.	Computational simulations of buoyancy-influenced turbulent flow and heat transfer in a vertical plane passage	1385–1397
Her, M.-G.	Implementation of a virtual tennis entertainment system with haptic behaviour	345–355
Herman, P.	Equations of motion with the identity mass matrix for holonomic systems	731–736
Hicks, B. J.	An energy-based approach for modelling the behaviour of packaging material during processing	105–118
Hills, D. A.	Unsymmetrical shear loading and its influence on the frictional shakedown of incomplete contacts	469–475
Hills, D. A.	The effect of a crack-tip radius on the validity of the singular solution	693–701
Hodson, H. P.	Measurements of thermal radiation in ultralight metal foams with open cells	1297–1307
Hodson, H. P.	Pressure loss and heat transfer mechanisms in a lattice-frame structured heat exchanger	1321–1336
Holmes, C.	The measurement of the rocking behaviour of graphite bricks using ultrasound	1213–1222
Howard, I.	The torsional stiffness of involute spur gears	131–142
Hredzak, B.	New passive balancing algorithm for high-density hard disk drives	401–410

© IMechE 2004

Hsia, S.-Y.	A new upper bound solution for a hollow cylinder subjected to compression and twist	369–375
Hsiao, K. M.	Study on improvements of the five-point double-toggle mould clamping mechanism	761–774
Hsu, K.-S.	Implementation of a virtual tennis entertainment system with haptic behaviour	345–355
Huang, K.-F.	Geometry analysis and optimal design of Geneva mechanisms with curved slots	449–459
Hur, J.-W.	Two-stage electrohydraulic servovalve using stack-type piezoelectric elements	53–65
Huynh, H.-N.	Predicting winding stresses for wound coils of linear orthotropic material	13–25
Huynh, H.-N.	Predicting winding stresses for wound coils of non-linear orthotropic material	27–38
Hwang, K. C.	Study of magnetomechanical non-linear deformation of ferromagnetic materials: theory and experiment	1405–1410
Hyder, J.	Flexural motion due to laser ablation: influence of force location on the flexural motion	1411–1420
Ikawa, N.	Brittle–ductile transition in monocrystalline silicon analysed by molecular dynamics simulation	583–590
Imagawa, T.	Acceleration of coagulation of particles in oil utilizing an a.c. electric field	317–326
Ishikawa, H.	Biaxial ratcheting deformation of type 304 stainless steel: effect of memorization of back stress	901–908
Izumi, S.	Rate-dependent shear deformation of ductile acrylic adhesive and its constitutive modelling	623–629
Jackson, J. D.	Simulation of mixed convection heat transfer to carbon dioxide at supercritical pressure	1281–1296
Jackson, J. D.	Performance of a variety of low Reynolds number turbulence models applied to mixed convection heat transfer to air flowing upwards in a vertical tube	1361–1372
Jackson, J. D.	Computational simulations of buoyancy-influenced turbulent flow and heat transfer in a vertical plane passage	1385–1397
James, D. M.	Impact of a non-homogeneous sphere on a rigid surface	273–281
Jang, M.-J.	Non-linear dynamic analysis of a flexible rotor supported by self-acting gas journal bearings	1527–1538
Jeon, S. Y.	A fluid film model for finite element analysis of structures with linear hydrostatic bearings	309–316
Jiang, P. X.	Simulation of mixed convection heat transfer to carbon dioxide at supercritical pressure	1281–1296
Jones, F. R.	Plasma deposition of constrained layer damping coatings	669–680
Jones, S. E.	Mass loss and blunting during high-speed penetration	1053–1062
Joo, C.-S.	Two-stage electrohydraulic servovalve using stack-type piezoelectric elements	53–65
Kabelac, S.	Numerical modelling of atmospheric pool boiling by the coupled map lattice method	195–205
Kanokjaruvijit, K.	An experimental investigation of the heat transfer due to multiple jets impinging normally on a dimpled surface	1337–1347
Kemal Ider, S.	Singularity robust inverse dynamics of planar 2-RPR parallel manipulators	721–730
Kendall, M. A. F.	Numerical simulation of heat transfer from transonic jet impinging on skin for needle-free powdered drug and vaccine delivery	1373–1383
Kihiu, J. M.	Overstraining of flush plain cross-bored cylinders	143–153
Kim, D.-H.	Dynamics of a spreader suspended by four flexible cables	1125–1138
Kim, H.-D.	An experimental study of underexpanded sonic, coaxial, swirl jets	93–103
Kim, H. D.	A new technique for the control of a weak shock discharged from a tube	377–387
Kim, H.-D.	Study of the effects of unsteady downstream conditions on the gas flow through a critical nozzle	1163–1173
Kim, H. D.	A study of the impulse waves discharged from convergent and divergent ducts	1469–1479
Kim, J.-H.	Study of the effects of unsteady downstream conditions on the gas flow through a critical nozzle	1163–1173
Kim, K. H.	A fluid film model for finite element analysis of structures with linear hydrostatic bearings	309–316
Kim, S. H.	Elastic stress waves of cylindrical rods subjected to rapid energy deposition	359–368
Kim, T.	Pressure loss and heat transfer mechanisms in a lattice-frame structured heat exchanger	1321–1336
Kim, W.-J.	Non-linear joint parameter identification using the frequency response function of the linear substructure	947–955
Kim, W. S.	Simulation of mixed convection heat transfer to carbon dioxide at supercritical pressure	1281–1296
Kim, W. S.	Performance of a variety of low Reynolds number turbulence models applied to mixed convection heat transfer to air flowing upwards in a vertical tube	1361–1372

© IMechE 2004

Kitamura, Y.	Microstructure and mechanical properties of pure titanium models fabricated by selective laser melting	711–719
Kleitz, A.	Instrumentation for wet steam	811–842
Kosing, O. E.	Use of a liquid shock tube as a device for the study of material deformation under impulsive loading conditions	39–51
Kovacevic, R.	Thermomechanical modelling and force analysis of friction stir welding by the finite element method	509–519
Kubie, J.	On the penetration of tubular drill pipes in horizontal oil wells	1063–1081
Kumar, K.	A comparative study of dynamic mesh updating methods used in the simulation of fluid–structure interaction problems with a non-linear free surface	283–300
Kumar, S.	A parametric study of a blown powder laser cladding and alloying process using a two-dimensional conduction model	703–709
Kweon, Y. H.	A new technique for the control of a weak shock discharged from a tube	377–387
Kweon, Y. H.	A study of the impulse waves discharged from convergent and divergent ducts	1469–1479
Lam, K. T.	A rolling–annealing cycle for enhanced deep drawing properties in interstitial free steels	631–639
Langley, R. S.	Model building and verification for active control of microvibrations with probabilistic assessment of the effects of uncertainties	389–399
Lau, K. J.	A unified viscoplastic description of 63Sn–37Pb solder alloy under cyclic straining and stressing	909–920
Lee, B.-Y.	Non-linear joint parameter identification using the frequency response function of the linear substructure	947–955
Lee, C.-K.	Mathematical models, meshing analysis and transmission design for a robust cylindrical gear set generated by two blade-discs with parabolic cutting edges	1539–1553
Lee, J.-J.	Geometry analysis and optimal design of Geneva mechanisms with curved slots	449–459
Lee, J.-W.	Dynamics of a spreader suspended by four flexible cables	1125–1138
Lee, K.-H.	An experimental study of underexpanded sonic, coaxial, swirl jets	93–103
Lee, K.-I.	Two-stage electrohydraulic servovalve using stack-type piezoelectric elements	53–65
Lewis, L.	Annulus wall temperatures and heat transfer coefficients in aeroengine compressors deduced from engine measurements	1349–1360
Li, D.	Modelling and simulation of residual stress and warpage in injection moulding	521–530
Li, H.	Mathematical modelling and manufacturing of the internal toroidal tooth profile	1043–1051
Li, J.	Performance of a variety of low Reynolds number turbulence models applied to mixed convection heat transfer to air flowing upwards in a vertical tube	1361–1372
Li, J.	Computational simulations of buoyancy-influenced turbulent flow and heat transfer in a vertical plane passage	1385–1397
Li, L.	The development of temperature fields and powder flow during laser direct metal deposition wall growth	531–541
Liang, W.	Response of copper nanowires in dynamic tensile deformation	599–606
Liao, G.	Gearbox condition monitoring using self-organizing feature maps	119–129
Liao, Y.-S.	Numerical studies of variations in the gap and finger width ratio and travelled distance for the driving force of a radio-frequency microelectromechanical system device using the dual boundary element method	1243–1253
Limebeer, D. J. N.	On steering wobble oscillations of motorcycles	1449–1456
Lin, C.-C.	Chaos, chaos control and synchronization of the vibrometer system	1001–1020
Lin, R. M.	Dynamics and control performance of hard disk drives with passive dampers	1555–1568
Lin, W. Y.	Study on improvements of the five-point double-toggle mould clamping mechanism	761–774
Lippmann, H.	Spatial free plastic forming of slender parts—numerical approaches for strain-hardening material	641–650
Liu, S.	Gearbox condition monitoring using self-organizing feature maps	119–129
Liu, Y.	Numerical simulation of heat transfer from transonic jet impinging on skin for needle-free powdered drug and vaccine delivery	1373–1383
Liu, Z.	A shielded hot-wire probe to detect flow reversals with one-dimensional pulsating flow	797–801
Lu, C. L.	On torsional stiffness and natural frequency of bellows	263–271
Lu, T. J.	Measurements of thermal radiation in ultralight metal foams with open cells	1297–1307
Lu, T. J.	Pressure loss and heat transfer mechanisms in a lattice-frame structured heat exchanger	1321–1336
Lumley, P.	Trends in acoustic properties of iron particle seeded auxetic polyurethane foam	241–244
Ma, Y.	Mechanics of pressure-assisted injection forging of tubular components	1195–1212
MacLennan, L. D.	Analysis of brake assembly with floating disc	1021–1032

© IMechE 2004

McCourt, I.	On the penetration of tubular drill pipes in horizontal oil wells	1063–1081
McPherson, C. J.	An energy-based approach for modelling the behaviour of packaging material during processing	105–118
Mago, P. J.	Effect of face velocity during refrigeration on hot-gas coil-defrosting near-saturated conditions	1507–1516
Mahpeykar, M. R.	Studies of nucleating and wet steam flows in two-dimensional cascades	843–858
Martinez-Botas, R. F.	An experimental investigation of the heat transfer due to multiple jets impinging normally on a dimpled surface	1337–1347
Mashmoushy, H.	Studies of nucleating and wet steam flows in two-dimensional cascades	843–858
Matsuo, S.	An experimental study of underexpanded sonic, coaxial, swirl jets	93–103
Matsuo, S.	Study of the effects of unsteady downstream conditions on the gas flow through a critical nozzle	1163–1173
Mayama, T.	Biaxial ratcheting deformation of type 304 stainless steel: effect of memorization of back stress	901–908
Medland, A. J.	An energy-based approach for modelling the behaviour of packaging material during processing	105–118
Mohanty, A.	Numerical modelling of atmospheric pool boiling by the coupled map lattice method	195–205
Mondal, D.	Droplet size and velocity distributions in a spray from a pressure swirl atomizer: application of maximum entropy formalism	737–749
Mullineux, G.	An energy-based approach for modelling the behaviour of packaging material during processing	105–118
Murali, K.	A comparative study of dynamic mesh updating methods used in the simulation of fluid–structure interaction problems with a non-linear free surface	283–300
Mutuli, S. M.	Overstraining of flush plain cross-bored cylinders	143–153
Nandi, A. K.	Design of a multi-punching system based on a locking mechanism	1033–1041
Narita, Y.	Maximizing the buckling loads of symmetrically laminated composite rectangular plates using a layerwise optimization approach	681–691
Neely, A. M.	Mass loss and blunting during high-speed penetration	1053–1062
Newland, D. E.	Pedestrian excitation of bridges	477–492
Nguyen, C. D.	An Incremental K-means algorithm	783–795
Nguyen, C. D.	A two-phase K-means algorithm for large datasets	1269–1273
Nguyen, V. T.	Prediction of spring-back in anisotropic sheet metals	651–661
Nishimura, N.	Acceleration of coagulation of particles in oil utilizing an a.c. electric field	317–326
Nurse, A. D.	On the numerical modelling of laser shearing of glass sheets used to optimize production methods	1–11
Osakada, K.	Microstructure and mechanical properties of pure titanium models fabricated by selective laser melting	711–719
Ottosen, N. S.	The influence of non-dissipative quantities in kinematic hardening plasticity	615–622
Park, K.-A.	Study of the effects of unsteady downstream conditions on the gas flow through a critical nozzle	1163–1173
Park, Y.-S.	Non-linear joint parameter identification using the frequency response function of the linear substructure	947–955
Paterson, N.	On the numerical modelling of laser shearing of glass sheets used to optimize production methods	1–11
Patten, J. A.	Numerical simulations of ductile regime machining of silicon nitride using the Drucker–Prager material model	577–582
Pedrero, J. I.	Determination of the effective path of contact of undercut involute gear teeth	751–760
Petr, V.	Wave propagation in wet steam	871–882
Pham, D. T.	An Incremental *K*-means algorithm	783–795
Pham, D. T.	A rule merging technique for handling noise in inductive learning	1255–1268
Pham, D. T.	A two-phase *K*-means algorithm for large datasets	1269–1273
Pinarbasi, A.	Numerical simulation of the stalled flow within a vaned centrifugal pump	425–435
Pinkerton, A. J.	The development of temperature fields and powder flow during laser direct metal deposition wall growth	531–541
Prabhakara, D. L.	Dynamic instability characteristics of doubly curved panels subjected to partially distributed follower edge loading with damping	67–81
Prince, A.	Solid state refrigeration: cooling and refrigeration using crystalline phase changes in metal alloys	1175–1179
Provins, J.	Annulus wall temperatures and heat transfer coefficients in aeroengine compressors deduced from engine measurements	1349–1360
Qin, Y.	Mechanics of pressure-assisted injection forging of tubular components	1195–1212

© IMechE 2004

Quadir, M. Z.	A rolling–annealing cycle for enhanced deep drawing properties in interstitial free steels	631–639
Quarini, J.	Solid state refrigeration: cooling and refrigeration using crystalline phase changes in metal alloys	1175–1179
Rading, G. O.	Overstraining of flush plain cross-bored cylinders	143–153
Ramírez, D. E.	Vibration analysis of rotors for the identification of shaft misalignment. Part 1: theoretical analysis	971–985
Ramírez, D. E.	Vibration analysis of rotors for the identification of shaft misalignment. Part 2: experimental validation	987–999
Rao, H. V.	Stress in V-section band clamps	251–261
Ravikrishna, R. V.	Multidimensional modelling of flow through piston-controlled ports using a multi-block, moving mesh algorithm	207–222
Ravi Kumar, L.	Dynamic instability characteristics of doubly curved panels subjected to partially distributed follower edge loading with damping	67–81
Ristinmaa, M.	The influence of non-dissipative quantities in kinematic hardening plasticity	615–622
Roberts, C. A.	A shielded hot-wire probe to detect flow reversals with one-dimensional pulsating flow	797–801
Rogers, E.	Model building and verification for active control of microvibrations with probabilistic assessment of the effects of uncertainties	389–399
Rongong, J. A.	Plasma deposition of constrained layer damping coatings	669–680
Roy, S.	A parametric study of a blown powder laser cladding and alloying process using a two-dimensional conduction model	703–709
Saavedra, P. N.	Vibration analysis of rotors for the identification of shaft misalignment. Part 1: theoretical analysis	971–985
Saavedra, P. N.	Vibration analysis of rotors for the identification of shaft misalignment. Part 2: experimental validation	987–999
Saitoh, K.-i.	Molecular dynamics study on interfaces generated between atomic clusters	607–614
Sakatani, K.	Boiling heat transfer characteristics of binary magnetic fluid flow in a vertical circular pipe with a partly heated region	223–232
Santos, E. C.	Microstructure and mechanical properties of pure titanium models fabricated by selective laser melting	711–719
Sarkar, A.	Droplet size and velocity distributions in a spray from a pressure swirl atomizer: application of maximum entropy formalism	737–749
Sasaki, K.	Biaxial ratcheting deformation of type 304 stainless steel: effect of memorization of back stress	901–908
Scarpa, F.	Trends in acoustic properties of iron particle seeded auxetic polyurethane foam	241–244
Schulz, M.	Elastic creep in serpentine belt drives and adopting a suitable strain measure	1421–1433
Setoguchi, T.	An experimental study of underexpanded sonic, coaxial, swirl jets	93–103
Setoguchi, T.	A new technique for the control of a weak shock discharged from a tube	377–387
Setoguchi, T.	Study of the effects of unsteady downstream conditions on the gas flow through a critical nozzle	1163–1173
Setoguchi, T.	A study of the impulse waves discharged from convergent and divergent ducts	1469–1479
Sharp, R. S.	On steering wobble oscillations of motorcycles	1449–1456
Shaughnessy, B. M.	Thermal design for the *Beagle 2* landed test environment	1309–1319
Sherif, S. A.	Effect of face velocity during refrigeration on hot-gas coil-defrosting near-saturated conditions	1507–1516
Shi, T.	Gearbox condition monitoring using self-organizing feature maps	119–129
Shi, X. H.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Shimada, S.	Brittle–ductile transition in monocrystalline silicon analysed by molecular dynamics simulation	583–590
Shiomi, M.	Microstructure and mechanical properties of pure titanium models fabricated by selective laser melting	711–719
Shoghi, K.	Stress in V-section band clamps	251–261
Shuchi, S.	Boiling heat transfer characteristics of binary magnetic fluid flow in a vertical circular pipe with a partly heated region	223–232
Skews, B. W.	Use of a liquid shock tube as a device for the study of material deformation under impulsive loading conditions	39–51
Su, Y. X.	Active suppression of dynamic coupling of the feed supporting system for the square kilometre array using an electrorheological damper	1569–1579
Sudharsan, N. M.	A comparative study of dynamic mesh updating methods used in the simulation of fluid–structure interaction problems with a non-linear free surface	283–300

© IMechE 2004

Sun, D.	Active suppression of dynamic coupling of the feed supporting system for the square kilometre array using an electrorheological damper	1569–1579
Swain, M. V.	Cyclic microindentations on monocrystalline silicon in air and in water	591–598
Symons, D. D.	Inertial liquid loading on the nozzle of a needle-free injection device	233–240
Tajima, J.	Optimization of open-die forging process design to ensure homogeneous grain size refinement of cast structures by three-dimensional rigid-plastic finite element analysis	931–946
Takiguchi, M.	Rate-dependent shear deformation of ductile acrylic adhesive and its constitutive modelling	623–629
Taleyarkhan, R. P.	Elastic stress waves of cylindrical rods subjected to rapid energy deposition	359–368
Tamura, K.	Optimization of open-die forging process design to ensure homogeneous grain size refinement of cast structures by three-dimensional rigid-plastic finite element analysis	931–946
Tanaka, H.	Brittle–ductile transition in monocrystalline silicon analysed by molecular dynamics simulation	583–590
Tawn, A.	On the numerical modelling of laser shearing of glass sheets used to optimize production methods	1–11
Thalmair, M.	Spatial free plastic forming of slender parts—numerical approaches for strain-hardening material	641–650
Thomson, P. F.	Prediction of spring-back in anisotropic sheet metals	651–661
Tomlinson, G. R.	Plasma deposition of constrained layer damping coatings	669–680
Truslove, T.	On the penetration of tubular drill pipes in horizontal oil wells	1063–1081
Turvey, G. J.	Maximizing the buckling loads of symmetrically laminated composite rectangular plates using a layerwise optimization approach	681–691
Tzou, G.-Y.	A new upper bound solution for a hollow cylinder subjected to compression and twist	369–375
Wakde, D. G.	Performance analysis of air-lift pump design	1155–1161
Wallin, M.	The influence of non-dissipative quantities in kinematic hardening plasticity	615–622
Wang, C.-C.	A numerical study of inkjet refilling	1481–1497
Wang, C.-C.	Non-linear dynamic analysis of a flexible rotor supported by self-acting gas journal bearings	1527–1538
Wang, J.	The torsional stiffness of involute spur gears	131–142
Wang, J.	Computational simulations of buoyancy-influenced turbulent flow and heat transfer in a vertical plane passage	1385–1397
Wang, T. Y.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Wicks, B.	Multipass low-plasticity burnishing induced residual stresses: three-dimensional elastic–plastic finite element modelling	663–668
Williams, K.	On the numerical modelling of laser shearing of glass sheets used to optimize production methods	1–11
Wu, L. J.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Wu, T. X.	On torsional stiffness and natural frequency of bellows	263–271
Wu, X.	Gearing principle and geometric design of conical involute gear pairs with crossed axis	1517–1526
Xu, L.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Xu, L. M.	Dynamics and control performance of hard disk drives with passive dampers	1555–1568
Xu, P.	Elastic stress waves of cylindrical rods subjected to rapid energy deposition	359–368
Xu, R. P.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Yamaguchi, H.	Boiling heat transfer characteristics of binary magnetic fluid flow in a vertical circular pipe with a partly heated region	223–232
Yan, J. D.	Uncertainty analysis using the thermodynamic method of pump efficiency testing	543–555
Yan, Y.	Effects of convection in laser-guided transportation	775–782
Yanabe, S.	Finite element analysis of belt skew caused by angular misalignment of rollers	1223–1232
Yanada, H.	Acceleration of coagulation of particles in oil utilizing an a.c. electric field	317–326
Yang, K.-S.	A numerical study of inkjet refilling	1481–1497
Yang, S.-C.	A mathematical model of a cc-type single-screw compressor	437–448
Yang, X. J.	A unified viscoplastic description of 63Sn–37Pb solder alloy under cyclic straining and stressing	909–920
Yao, L.	Mathematical modelling and manufacturing of the internal toroidal tooth profile	1043–1051
Yao, L.	Design of a milling cutter for a novel three-lobe arc–cycloidal helical rotor	1233–1241
Ye, Q. T.	On torsional stiffness and natural frequency of bellows	263–271
Ye, Z.	Design of a milling cutter for a novel three-lobe arc–cycloidal helical rotor	1233–1241
Yeh, M.-K.	Hygrothermal stress analysis of a plastic ball grid array package during solder reflow	957–970

 © IMechE 2004

Yilbas, B. S.	Flexural motion due to laser ablation: influence of force location on the flexural motion	1411–1420
Yoo, J. K.	Pressure control of a pneumatic valve system using a piezoceramic flapper	83–91
Yoshida, F.	Rate-dependent shear deformation of ductile acrylic adhesive and its constitutive modelling	623–629
Yoshida, K.	Finite element analysis of belt skew caused by angular misalignment of rollers	1223–1232
Yu, J. G.	On torsional stiffness and natural frequency of bellows	263–271
Yuen, W. Y. D.	Predicting winding stresses for wound coils of linear orthotropic material	13–25
Yuen, W. Y. D.	Predicting winding stresses for wound coils of non-linear orthotropic material	27–38
Zarudi, I.	Cyclic microindentations on monocrystalline silicon in air and in water	591–598
Zeng, S.	Dynamics and control performance of hard disk drives with passive dampers	1555–1568
Zhang, D.	Experimental study of steam turbine control valves	493–507
Zhang, G.	Gearbox condition monitoring using self-organizing feature maps	119–129
Zhang, L. C.	Cyclic microindentations on monocrystalline silicon in air and in water	591–598
Zhang, R.	Effects of convection in laser-guided transportation	775–782
Zhao, C. Y.	Measurements of thermal radiation in ultralight metal foams with open cells	1297–1307
Zheng, J.	Elastic stress waves of cylindrical rods subjected to rapid energy deposition	359–368
Zhou, H.	Modelling and simulation of residual stress and warpage in injection moulding	521–530
Zhou, M.	Response of copper nanowires in dynamic tensile deformation	599–606
Zhuang, W.	Multipass low-plasticity burnishing induced residual stresses: three-dimensional elastic–plastic finite element modelling	663–668

© IMechE 2004